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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/759,272      | 01/20/2004  | Chuan-Kung Hou       | 320528568US         | 6843             |

25096 7590 09/17/2008  
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| EXAMINER |
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WANG, KENT F

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| ART UNIT | PAPER NUMBER |
|----------|--------------|

2622

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|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

09/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendments, filed on 07/21/2008, have been entered and made of record. Claims 1-20, 25-26, 29, 31 and 36 has been cancelled. Claims 21-24, 27-28, 30, 32-35 and 37-38 are pending.

### ***Response to Arguments***

2. Applicant's arguments, see page 8-12, filed 07/21/2008, with respect to claims 21-24, 27-28, 30, 32-35 and 37-38 have been considered but are moot in view of the new ground(s) of rejection.

### ***Claim Rejections - 35 USC § 103***

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 21-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 7,269,442) in view of Lee (US 2004/0097258), and further in view of Dobbins (US 6,259,794).

Regarding claim 21, Sato discloses a combination picture-taking and sound-generating apparatus for use with a portable electronic device (a portable telephone with a camera, Fig 1), the apparatus comprising:

Art Unit: 2622

- a housing (a hinge portion 3, Fig 1) having a generally circular cross-section, an open end (first rotating portion 51, Fig 1), a closed end (second rotating portion 52, Fig 1), exterior walls defining an exterior surface, a viewfinder window in the exterior surface (an aperture window 63A, Fig 1), and interior walls defining a generally hollow interior portion (3:3 to 4:50 and 5:45-51);
- a picture-taking element (an imaging unit 6, Fig 3) within the generally hollow interior portion (first rotating portion 51, Fig 1) and proximate to the viewfinder window (63A), wherein the picture-taking element (6) is configured to capture images and generate image signals corresponding to the captured images for transmission to the portable electronic device (5:20-29); and
- a cap (a cap 63, Fig 3) covering the open end of the housing (first rotating portion 51, Fig 1), wherein the cap and the housing enclose the picture-taking element (6) (5:20-29),
- wherein the closed end (second rotating portion 52) has a first axle (first rotating portion 41, Fig 3) formed thereon and the cap (a cap 63, Fig 3) has a second axle (a tubular portion 62C, Figs 3-4) formed thereon, the first and second axles (41, 62C) configured to be operably coupled to the portable electronic device, and wherein the apparatus is rotatably movable about the first and second axles relative to the portable electronic device (rotating function and imparting a direction-of-axis force) (4:4-22, 5:60-64 and Fig 3).

Sato does not teach the video/audio combo device adopted to comprise a sound-generating element within the generally hollow interior portion and proximate to the at least

Art Unit: 2622

one audio port and a resonant space for sounds generated by the sound-generating element. However, Lee teaches a video/audio combo device has a sound-generating element (a pair of side speakers S1 and S2, Fig 8) within the generally hollow interior portion (a center hinge arm 26, Fig 2) and proximate to the at least one audio port (side hinge arms 15a and 15b, Fig 2), wherein the sound-generating element (S1, S2) is configured to receive audio signals from the portable electronic device (a portable terminal) and generate sounds corresponding to the audio signals ([0034]-[0035]); Lee further teaches a generally hollow interior portion (26) is positioned as a resonant space for sounds generated by the sound-generating element (S1, S2) (resonance block 115 partitions the empty space 113 between the speakers S1 and S2 to provide two separate isolated resonant space from interfering each other ([0047]-[0049])).

Sato and Lee do not teach the video/audio combo device adopted to comprise a closed end has a first surface with a first axle formed thereon and the cap has a second surface facing away from the first surface with a second axle formed. However, Dobbins teaches a audio device has a closed end (second device 100 as a closed bottom end, Fig 9) has a first surface (a bottom wall 104, Figs 8-9) with a first axle formed thereon and the cap (first device 22 as a cap, Fig 2) has a second surface (an open top end 106, Figs 8-9) facing away from the first surface with a second axle formed (Figs 6 and 10) (device (22) has a hollow housing (23) and includes a cylindrical wall (24), a top surface (26), and a bottom end (28) defining a generally cylindrical opening (29) sized to receive the cap (18) therethrough and a set of speaker holes (30) are provided on the top surface (26) to accommodate an internal speaker and the speaker holes could be positioned on the cylindrical wall (24); device (100)

Art Unit: 2622

comprises a cylindrical wall (102), a bottom wall (104), an open top end (106), and an interior wall (108) with a record-command opening (109)) (2:60-3:27 and 4:47-5:12, Dobbins).

Here, although Sato does not teach the video/audio combo device adopted to comprise a sound-generating element within the generally hollow interior portion, it is noted that when modify the camera to incorporate a portable terminal capable of providing stereo sound as suggested by Lee, one skilled in the art would recognize the need of mounting these speakers in the first rotating member in order to receive audio signals from the portable electronic device and generate sounds corresponding to the audio signals. Therefore, it would have been obvious to one of ordinary skill in the art at the time this invention was made to have using a pair of speakers as taught by Lee as modified by Sato so that it makes possible to have a sound-generating element in the generally hollow interior portion as claimed, so that a barrier disposed behind the side speakers to prevent sound emitted from the side speakers from interfering with each other and a user can enjoy stereo sound while shooting a picture ([0015], Lee).

It would have been further obvious to one of ordinary skill in the art at the time this invention was made to have used an audio design as taught by Dobbins as modified by Sato so that it makes possible to have a built-in audio recording and playback feature for recording and listening to instructions or music as the audio device has a power supply, an audio input component (i.e., microphone), an audio output component (speaker), audio recording storage in the form of electronic data memory, control buttons in communication with a

Art Unit: 2622

microprocessor, and associated electronic circuitry, thus enable the user to easily playback the recording to receive verbal, audio instructions and warnings (1:63-2:11, Dobbins).

Regarding claim 22, Sato discloses a housing (a hinge portion 3, Fig 1) having a generally circular cross-section has a closed end (second rotating portion 52, Fig 1) and Lee discloses at least one audio port (side hinge arms 15a and 15b, Fig 2) is at a portion of the exterior surface (a center hinge arm 26) ([0033], Lee).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to have used an audio port as taught by Lee as modified by Sato so that it makes possible to have one audio port is at a portion of the exterior surface corresponding to the closed end as achieve the claimed invention.

Regarding claim 23, Sato discloses the picture-taking element includes a Charge Coupled Device (5:30-44, Sato).

Regarding claim 24, the limitations of claim 21 are taught above, Lee does teach that the camera has a pair of speakers that providing stereo sound. While Lee does not teach the use of Mylar speakers, Official Notice is hereby taken that it would have been obvious to one of ordinary skill in the art to have included any speakers with a thin diaphragm and suspended between two screens or perforated metal sheets, and thus producing high frequencies from the high pitched sounds.

5. Claims 27-28, 30, 32-35 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sato (US 7,269,442) in view of Lee (US 2004/0097258), and further in view of Dobbins (US 6,259,794), and further in view of Shimizu (US 2002/0158987).

Regarding claim 27, this claim differs from claim 21 only in that the claim 27 recites the apparatus is configured to be fixedly positioned and not rotatable in the portable electronic device. Sato, Lee, and Dobbins do not disclose the apparatus is configured to be fixedly positioned and not rotatable in the portable electronic device. However, Shimizu discloses the apparatus is configured to be fixedly positioned and not rotatable in the portable electronic device (the video camera 72 can be fixedly attached to the top of the screen 14 of a personal computer, Fig 8) ([0056]).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to have used video camera as taught by Shimizu as modified by Sato, Lee and Dobbins so that it makes possible to adjust the exposure of the video camera 72 to an optimal level ([0057], Shimizu).

Regarding claim 28, Sato does teach the body (the hinge portion 3, Fig 1) includes a first portion having an interior region (first rotating portion 51, Fig 1) and a second portion (second rotating portion 52, Fig 1) configured to be attached to the first portion, the first and second portions (51, 52) forming the interior region of the body (3) (3:65-4:50). Sato does not teach the interior region of the body that provides the resonant space.

Lee teaches a generally hollow interior portion (26) is positioned as a resonant space for sounds generated by the sound-generating element (S1, S2) (resonance block 115 partitions the empty space 113 between the speakers S1 and S2 to provide two separate isolated resonant space from interfering each other ([0047]-[0049]).

It would have been obvious to one of ordinary skill in the art at the time this invention was made to have using a pair of speakers as taught by Lee as modified by Sato so that it



Art Unit: 2622

makes possible to have a sound-generating element in the generally hollow interior portion as claimed, so that a barrier disposed behind the side speakers to prevent sound emitted from the side speakers from interfering with each other and a user can enjoy stereo sound while shooting a picture ([0015], Lee).

Regarding claim 30, this claim recites same limitations as claim 27. Thus it is analyzed and rejected as previously discussed with respect to claim 27 above.

Regarding claim 37, this claim recites same limitations as claim 27. Thus it is analyzed and rejected as previously discussed with respect to claim 27 above.

Regarding claim 38, this claim recites same limitations as claim 21. Thus it is analyzed and rejected as previously discussed with respect to claim 21 above.

Regarding claim 32, Lee does teach the opening is a first opening (side hinge arms 15a, Fig 2), the housing further has a second opening in the exterior surface (side hinge arms 15b, Fig 2). Lee references does not specifically teach an electrical connector attached to the image-capturing element, however Lee does teach that the "portable terminals" are electronic devices which gave implicit that the device comprising an electrical connector attached to the image-capturing element ([0005]).

Regarding claim 33, this claim recites same limitations as claim 32. Thus it is analyzed and rejected as previously discussed with respect to claim 32 above.

Regarding claims 34 and 35, these claims recite same limitations as claims 28 and 22, respectively. Thus they are analyzed and rejected as previously discussed with respect to claims 28 and 22 above.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Parker et al. (US 7,146,200), Choi (US 7,061,520), Haberkern et al. (US 4,633,323), Nakamura (US 7,190,968), and Manico et al. (US 7,259,793).
7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kent Wang whose telephone number is 571-270-1703. The examiner can normally be reached on 8:00 A.M. - 5:30 PM (every other Friday off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc Yen Vu can be reached on 571-272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-270-8300.

Art Unit: 2622

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KW

8 September 2008

*/Ngoc-Yen T. VU/  
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